Figure 1 - Linux SMP host

Figure 2 - Uni-processor Linux

Offset in Seconds
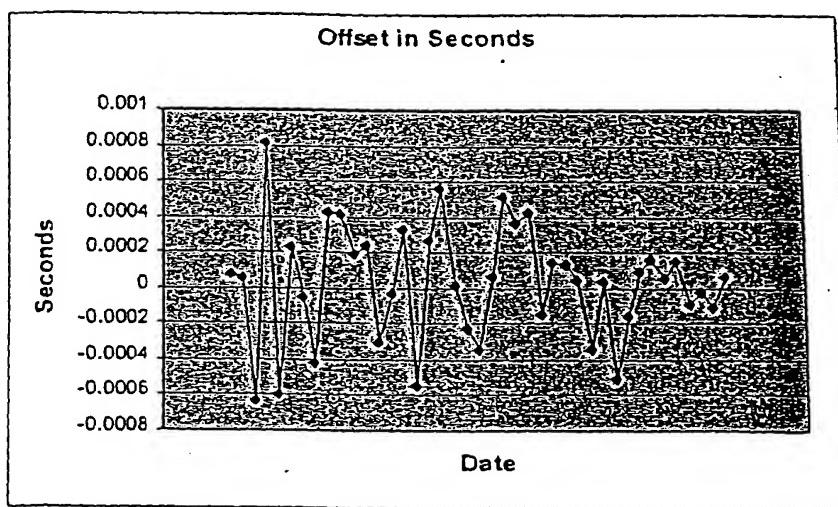

FIG. 3   - Offset in seconds from time source
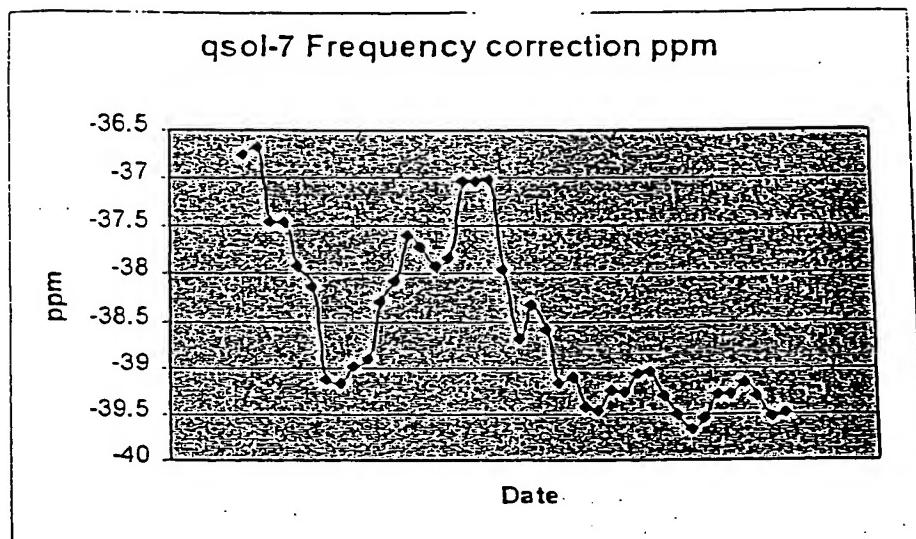
FIG 4 - **Frequency correction in ppm**
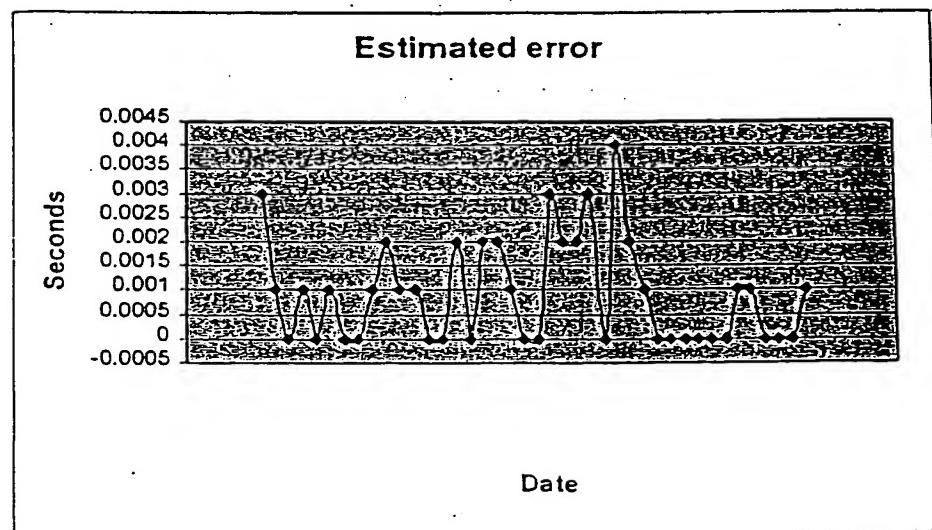
FIG 5 - **Estimated error in seconds**

GHz clock frequency
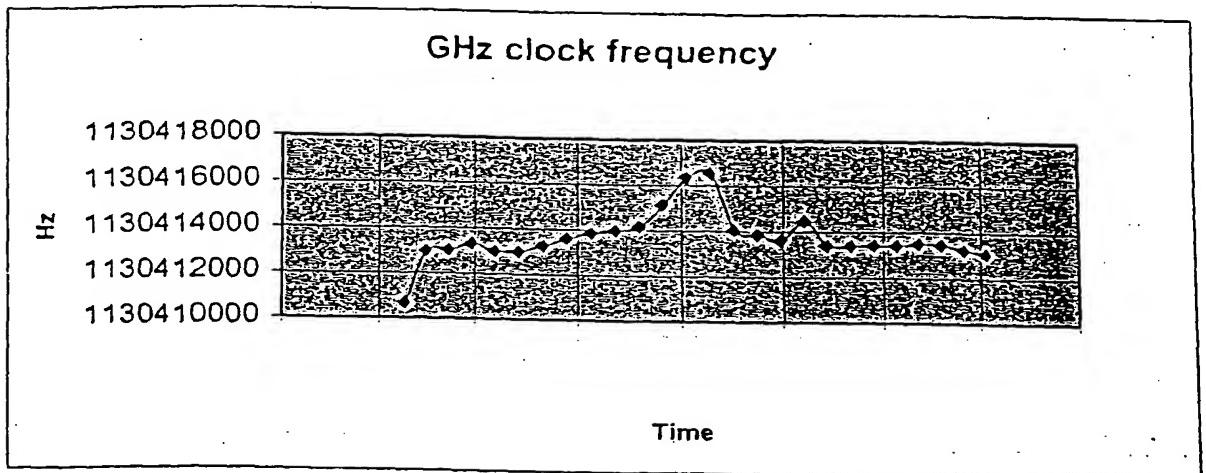
FIG. 6 - GHz Clock Frequency

Local system clock offset

FIG. 7 - Local System Clock Offset

Freq Offset (Dell)- NTP wo/TS
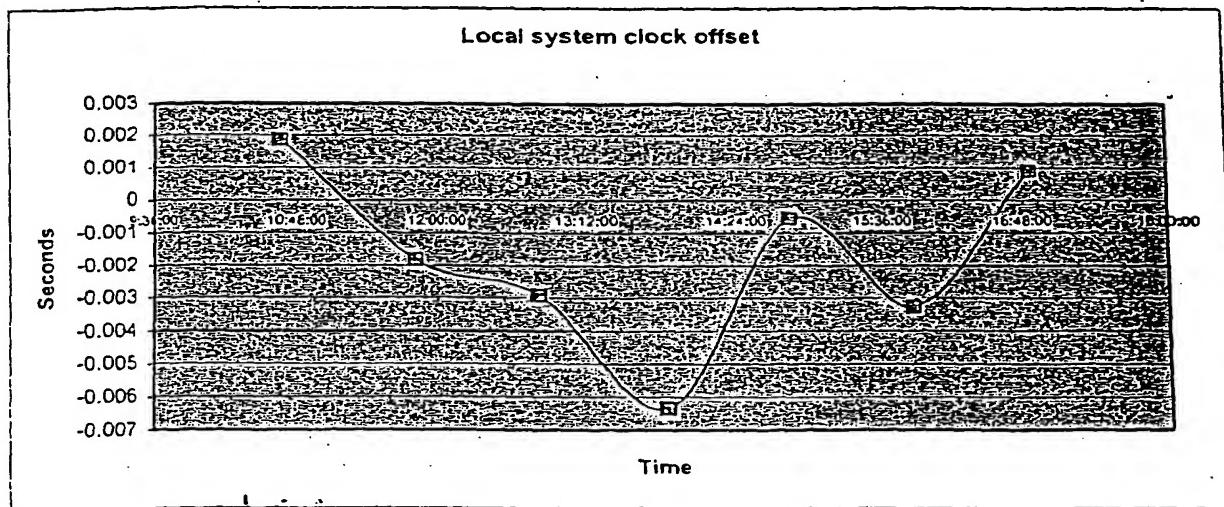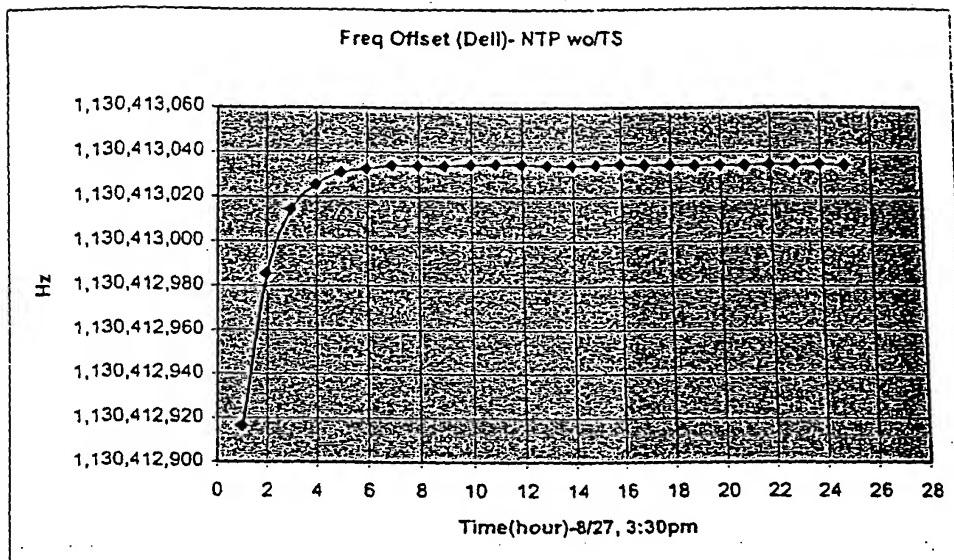
FIG. 8 · NTP correction after timeserver removed
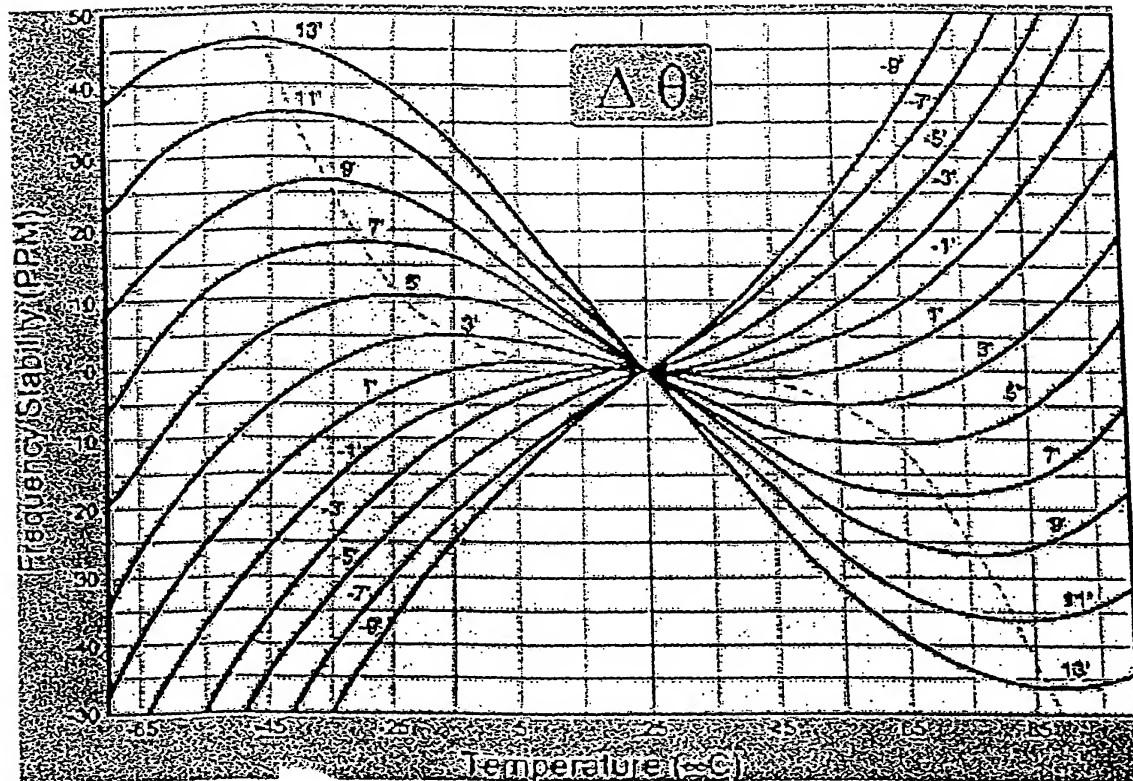
FIG. 9 - Crystal drift with temperature

## Frequency change with temp and voltage
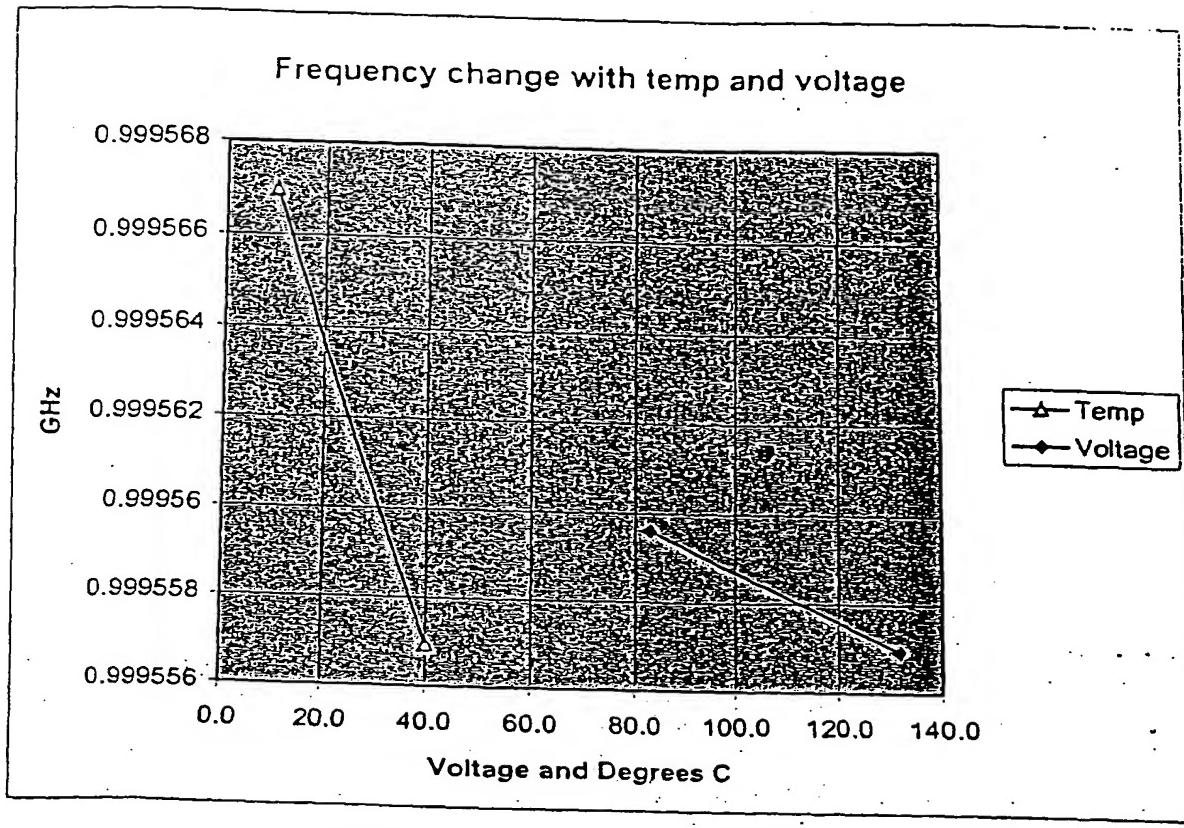
FIG. 10 - Change of frequency with Temperature and Supply voltage
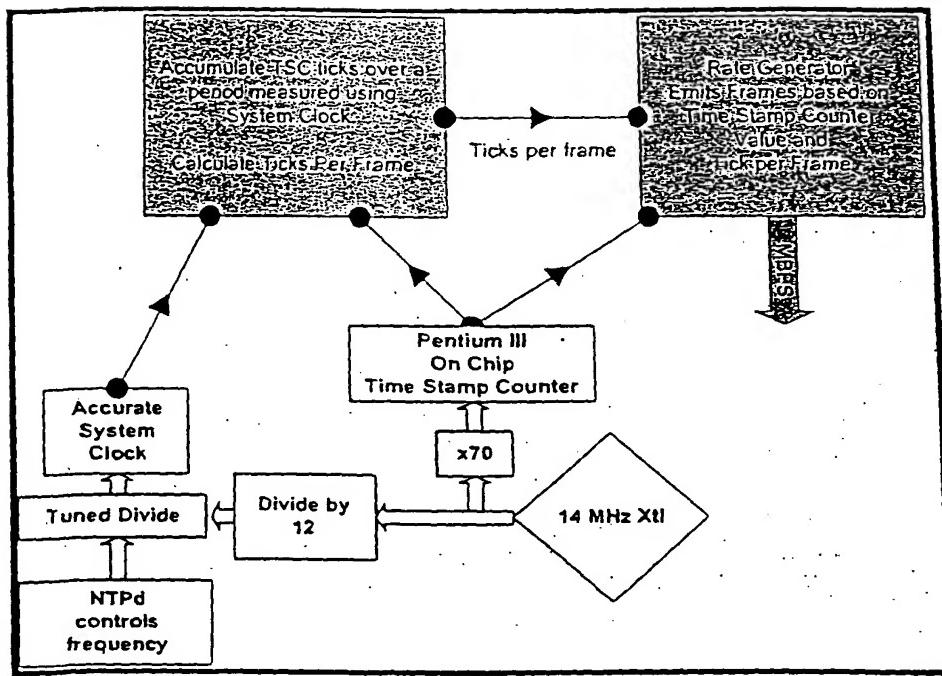
FIG. 11 '- Rate controller control loop

Applicant: Cleary, Brown
Title: Low Cost, Highly Accurate Video
Server Bit-Rate Compensation
Docket: DIVA/993
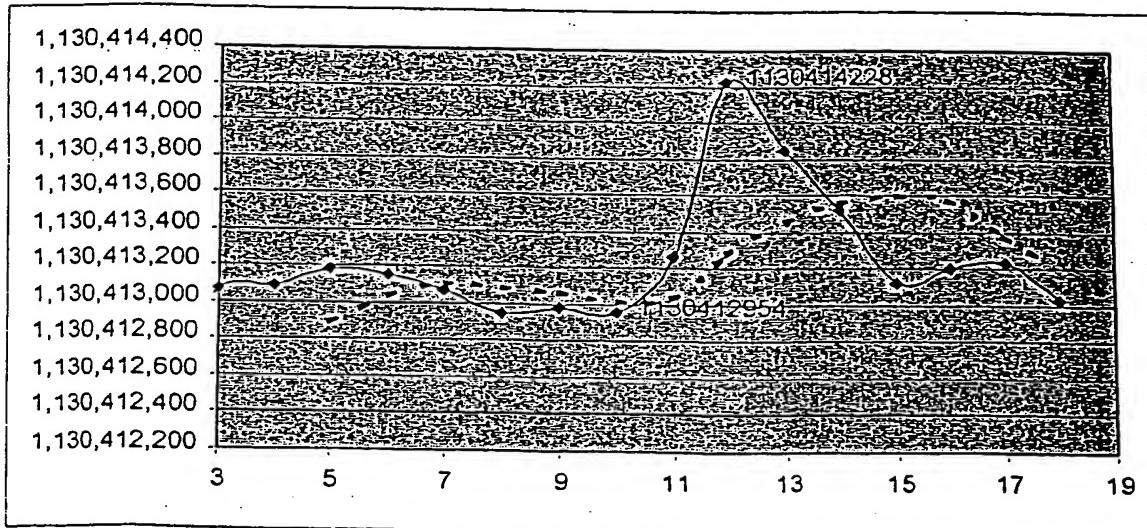
F-/G. /2 - Low pass filter of GHz crystal measurements

START ~1301

PARTITION VIDEO SERVER PROCESSES ~1305

ASSOCIATE EACH OF A PLURALITY OF PROCESSING ELEMENTS WITH AT LEAST ONE RESPECTIVE PROCESS ~1310

ASSIGN PRIORITY TO PROCESSING ELEMENTS ACCORDING TO A HIERARCHY OF VIDEO SERVER PROCESSES ~1315

MONITOR TIMING PARAMETERS, OPERATING PARAMETERS AND SYSTEM LOADING ~1320

ADJUST HIERARCHY ACCORDING TO MONITORED TIMING PARAMETERS, CHANGES IN SYSTEM LOADING OR OPERATING CONDITIONS, AND/OR OPERATING SYSTEM SCHEDULER REQUIREMENTS ~1325

ADJUST ASSOCIATIONS IN RESPONSE TO PROCESSING ELEMENT LOADING, MONITORED TIMING PARAMETERS, CHANGES IN SYSTEM LOADING OR OPERATING CONDITIONS, AND/OR SCHEDULER REQUIREMENTS ~1330

1300

FIG 13

INPUT OUTPUT CIRCUIT 1410

SUPPORT CIRCUITRY 1420

PROCESSOR 1430

1400

MEMORY 1440

PROGRAMS 1442

FIG. 14